

I am concerned about the use of existing power lines to carry broadband signals (AKA PLC). I urge the Commission to conduct rigorous research to assure that the implementation and use of PLC does not cause harmful interference in two main areas.

Many Building Automation Systems (BAS) use power line carrier technology to provide communication between air conditioning and ventilation equipment. This type system is applied in large buildings and on sites with multiple buildings, such as schools, campuses, etc. How will these devices cope with the addition of other PLC signals on the power grid? Also, what happens to various digital and analog products that are connected to the grid? Furthermore, these devices have been tested to assure compliance with article 15, assuming a "clean" power supply. What happens when you flood these devices with a high frequency carrier?

The second area to investigate is the effect on radio communications, primarily fire, police, and amateur bands. Keep in mind that the rural areas that are to reap the most benefits from PLC also tend to have older lower frequency systems. The AC power grid forms one gigantic antenna.

While there are undoubtedly great benefits to PLC, please make sure that these benefits are justified by the costs to our existing infrastructure.

Implementation of PLC must be monitored and steps should be taken to prevent harmful interference, before such interference occurs.